

Translation

PATENT COOPERATION TREATY

PCT/CH2003/000569



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 02/086 WO	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/CH2003/000569	International filing date (day/month/year) 22 August 2003 (22.08.2003)	Priority date (day/month/year)
International Patent Classification (IPC) or national classification and IPC H01R 13/33, 13/24, H01L 23/48		
Applicant ABB SCHWEIZ AG		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet. <input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT). These annexes consist of a total of <u>2</u> sheets.
3. This report contains indications relating to the following items: I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application

Date of submission of the demand 03 March 2005 (03.03.2005)	Date of completion of this report 10 November 2005 (10.11.2005)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

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International application No.

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I. Basis of the report

1. With regard to the elements of the international application:*

- ☐ the international application as originally filed
- ☒ the description:
pages 1-9, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☒ the claims:
pages 9, 10, as originally filed
pages _____, as amended (together with any statement under Article 19
pages _____, filed with the demand
pages 1-7, filed with the letter of 23 August 2004 (23.08.2004)
- ☒ the drawings:
pages 1/3-3/3, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-7	YES
	Claims		NO
Inventive step (IS)	Claims	1-7	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-7	YES
	Claims		NO

2. Citations and explanations

1. Reference is made to the following documents:

D1: PATENT ABSTRACTS OF JAPAN, Vol. 010, No. 347
(E-457), 21 November 1986 & JP 61 150249 A
(TOSHIBA CORP), 8 July 1986

D2: US-A-4 623 207 (TANUMA JIRO ET AL), 18 November 1986

D3: US-A-4 012 094 (VANRENSSEN MARINUS ET AL),
15 March 1977

D4: DE 12 76 158 B (HARTING ELEKTRO W), 29 August 1968

D5: US-B1-6 579 804 (ALDAZ ROBERT EDWARD ET AL),
17 June 2003

D6: US-B1-6 246 247 (ELDRIDGE BENJAMIN N ET AL),
12 June 2001

2. Document D1, which is considered to be the prior art closest to the subject matter of claim 1, discloses the following (the references in parentheses are to D1):

An electrical compression spring (see figure 3) made of wire, with a first contact part having a contact point (42) and a second contact part (41); a compression part with a curved portion (44) between the first (42) and second (41) contact parts, and a straight portion running in the

direction of action of the spring force, starting at the compression part (44) and leading to the contact point (42); and a rounded contact point (42) with an outer radius that is approximately twice as thick as the wire.

The subject matter of claim 1 differs from the known compression spring in that the wire is bent in the first contact part, and in that the bent wire forms the contact point.

The subject matter of claim 1 is therefore novel (PCT Article 33(2)).

3. The problem addressed by the present invention can be seen as that of finding an alternative to the spherical contact point described in D1.

The solution proposed in claim 1 of the application involves an inventive step (PCT Article 33(3)) because a straight portion of wire leading to the contact point and running in the direction of action of the spring force is not known from any of documents D3 to D6.

Document D2 shows a contact spring which, at first glance, appears similar to the compression spring according to claim 1. However, the bent portion is a two-wire terminal lug (see reference sign 3), not a pressure contact spring.

Thus there is nothing in any of documents D2 to D6 to suggest to a person skilled in the art the idea of replacing the spherical contact point with a bent-back end of the contact spring.

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The solution proposed in claim 1 therefore involves an inventive step (PCT Article 33(3)).

4. Claims 2 to 7 are dependent on claim 1 and therefore also meet the PCT requirements in respect of novelty and inventive step.